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ALUMNI- REPORT.



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THE PHILADELPHIA COLLEGE OF PHARMACY

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VOL. XXXIII.

NOVEMBER, 1897.

No. II.

... Contents ...

LOUIS EMANUEL.

EDITORIALS.

The Second Alumni Social Meeting.
Monument to Pelletier and Caventou.
Shall Fermented and Distilled Liquors be Dismissed from
the U. S. Pharmacopœia?

PHARMACEUTICAL MEETING.

An Examination of Some Official Lead Preparations.
International Congresses.
Balsam Copaiba, Oil of Copaiba, Mass Copaiba and Gurjun
Balsam.
Shall Fermented and Distilled Liquors be Dismissed from
the U. S. Pharmacopœia?

SOCIAL MEETING.

Address: "Life in a German University," by Henry
Kraemer.

CLASS NEWS.

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NOTICES OF MEETINGS.

PHARMACEUTICAL MEETING, Tuesday Afternoon, November 16, 1897, at 3 o'clock, in the College Museum, 145 N. Tenth St., Philadelphia.

SOCIAL MEETING, Tuesday Evening, November 30, 1897, 8 o'clock, at 145 N. Tenth St., Philadelphia. Prof. Jos. P. Remington will speak upon the subject of "European Pharmacists," illustrating the same by views with the stereopticon. Representatives from the Mt. Vernon Institute of Elocution and Languages will also be present.

EXECUTIVE BOARD MEETING, Thursday Afternoon, December 2, 1897, 3.30 o'clock, at 145 N. Tenth St., Philadelphia.

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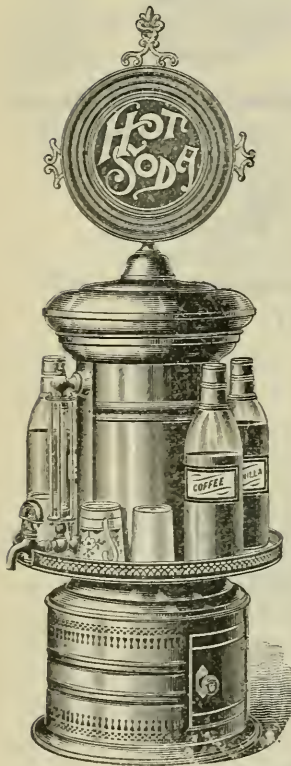
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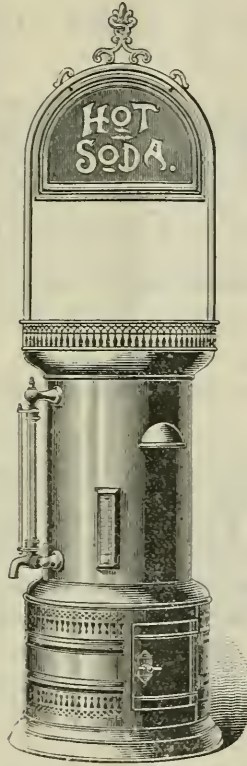
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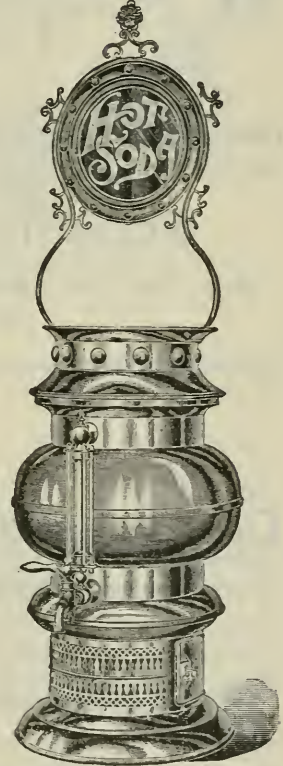
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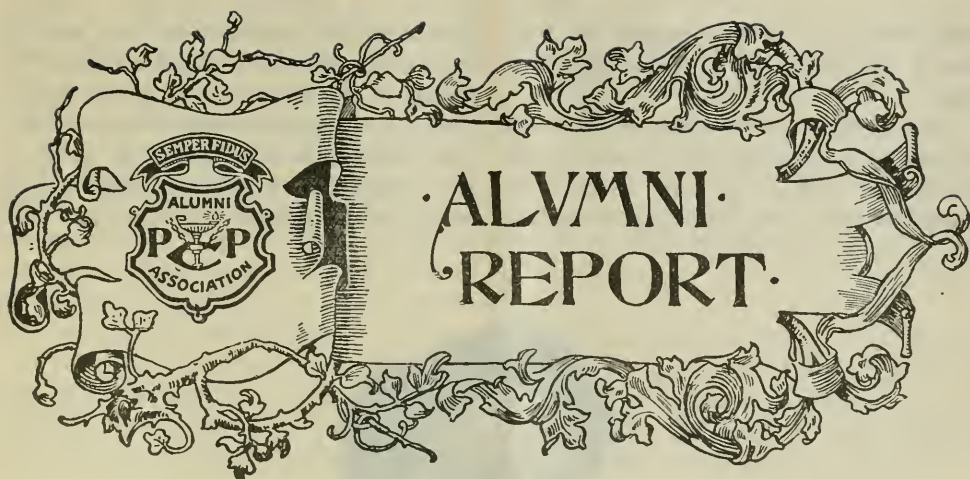
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PUBLISHED BY THE ALUMNI ASSOCIATION OF THE
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VOL. XXXIII.

... NOVEMBER, 1897 ...

No. 11

LOUIS EMANUEL.

Probably no pharmacist in this State is better known than Louis Emanuel, of Pittsburg. As President of the Pennsylvania State Pharmaceutical Examining Board, as President of the Pittsburg College of Pharmacy, a department of the University of Western Pennsylvania, and as a former Professor of Chemistry in that school, it has been his good fortune to become widely and favorably known by the pharmaceutical interests of the State.

Born at Hanover, Hancock County, O., on June 24, 1854, his parents removed with him, at the age of two years, to Allegheny, Pa.

His early education was had, in due time, at St. Mary's school, a German parochial school.

At the age of thirteen years he was

apprenticed to Dr. M. S. Benson, of Allegheny, and after remaining with him for some time, the young man's thoughts turned in the direction of the need of a collegiate training in practical pharmacy. Hence, he came to Philadelphia, in the early '70's, matriculated at the Philadelphia College of Pharmacy, and entered the Junior Class in the fall of 1874. He proved to be an earnest, hard-working student, and in the spring of 1875 passed the Junior examinations. In the fall of 1875, he took up the work of the Senior year, and graduated in the spring of 1876, the subject of his thesis being entitled: "Glycerin as an Excipient for Pill Masses," of which Professor Maisch wrote: "That a simple subject may be made valuable you can judge from Mr. Emanuel's thesis, published this month

(*American Journal of Pharmacy*, May, 1876), which I consider among the best that were presented at the last examination."

After graduation, Mr. Emanuel turned his attention towards the practice of his profession, and in the fall of 1877 he started in business in Pittsburg, at Second

present its presiding officer. With a pharmacy law to administer that was far from being what the pharmaceutical interests of the State wanted at the time of its passage, but which was all that a reluctant Legislature was willing to grant to protect the health and lives of the people of the State against incompetency and



LOUIS EMANUEL.

Avenue and Grant Street, where he now is.

Professor Emanuel is probably best known by his work in connection with the Pennsylvania State Pharmaceutical Examining Board. In 1890 he was appointed a member of the Board by Governor Pattison, and in 1895 was reappointed by Governor Hastings, and is at

worse in the preparation and dispensing of drugs and medicines for the sick, Professor Emanuel's position on the Board—as well as that of its other members—has been a trying one, and yet, it may be truly said that he has won, by his fairness, the esteem and good-will of those who have had to do with the State Board.

In 1878 Louis Emanuel became a

member of the American Pharmaceutical Association, and in 1879 he joined the Pennsylvania Pharmaceutical Association. In this latter organization, especially, he has taken a deep interest, having served as chairman and member of a number of important committees. He has particularly urged, before the meetings of the Association, the vital need of pharmacists combating the patent medicine traffic on its own ground, by preparing, for physicians' use, lines of therapeutically efficient and pharmaceutically elegant combinations of remedial substances. As chairman of the delegation

to attend the last meeting of the State Medical Society of Pennsylvania, to represent the Pennsylvania Pharmaceutical Association, he displayed before the Society a set of the products of the "National Formulary." The exhibit was an object lesson to physicians as to the possibilities of the pharmacy of to-day, and produced widespread and favorable comments.

Professor Emanuel is yet a young man, and while he has accomplished much in the work of his chosen profession, his friends look forward to still higher achievements by him in the future.

Editorials.

THE NOVEMBER ALUMNI SOCIAL MEETING.

It is sometimes well to look through the eye-glasses of others. The pharmacists of this country seem to think that they are subject to every ill that pharmaceutical flesh is heir to; but a trip abroad, and a little inquiry, is sufficient to show that all is not "glittering gold," and that the pharmacists abroad have troubles peculiarly their own. At the same time, the conditions under which they work are conducive to original scientific results in a degree that does not obtain in this country. With his intimate knowledge of the details of American pharmacy, few persons, we think, are as well qualified to analyze the conditions of European pharmacy, and point out their valuable and valueless features, as applied to the

conditions of this country, as the Dean of the Philadelphia College of Pharmacy, who spent the summer abroad in attendance upon the recent meeting of the International Pharmaceutical Congress, held at Brussels, and in touring through certain portions of the European countries. Hence, it is with especial pleasure that the Committee on Social Meetings announce that an address will be made to the Alumni Association and the friends of the College, on the subject of "European Pharmacists," by Prof. Joseph P. Remington, on Tuesday evening, November 30, 1897, at 8 o'clock, in the College, 145 North Tenth Street. A cordial invitation is extended to all interested to be present on this occasion.

MONUMENT TO PELLETIER AND CAVENTOU.

The following open letter to pharmacists has been received for publication from our fellow-alumnus, Henry Trimble,

a graduate of the Class of '76, and Professor of Analytical Chemistry in the Philadelphia College of Pharmacy:

DEAR SIR:—At a meeting of the Board of Trustees of the Philadelphia College of Pharmacy, held November 2, 1897, an invitation from a committee of French pharmacists to subscribe to the proposed monument of Pelletier and Caventou was considered, and the undersigned was appointed to bring the subject to the attention of the pharmacists of the United States, and to receive subscriptions. An appeal was immediately sent to the members of the Board individually, with the result that 500 francs (\$100) will be sent to Paris in a few days.

It is now in order to call the attention of pharmacists throughout the country to this important matter. The effort to erect this monument appeals directly to members of the pharmaceutical profession, for the following reasons:

(1) Pelletier and Caventou were pharmacists; few, if any, monuments have ever been erected to the memory of pharmacists as such.

(2) They were the discoverers of quinine, strychnine and a number of other plant principles, and gave their discoveries to the world unencumbered by patent, trade-mark, copyright, or any other reservation.

(3) The relations of pharmacists in the two countries, France and the United States, have always been the most cordial, and we owe much to French pharmacists of the early part of the nineteenth century for their many discoveries of plant principles.

When a monument is proposed to a soldier, statesman, lawyer or physician, it goes up, as it were, in a night. Now we have an opportunity to indicate, in a substantial manner, our appreciation of two notable members of the pharmaceutical profession. Let us be large-hearted enough to overlook the fact that this monument will not be erected in our own country. Is there any place in the world that would be more appropriate for such a testimonial than in front of the School of Pharmacy in Paris?

It is expected that this monument will be completed before 1900. Many pharmacists will assemble in Paris at that time, not only to visit

the Exposition, but also to attend the International Pharmaceutical Congress to be held at that time.

Let there be subscriptions of \$1 (5 francs) each from the pharmacists of this country. These donations may be sent directly to M. Bocquillon-Limousin, 2 bis Rue Blanche, Paris, or to the undersigned, who will receipt for and forward the same promptly to Paris, with the name of the donor.

HENRY TRIMBLE,
145 North Tenth Street,
Philadelphia.

November 6, 1897.

There is little need to comment on the worthiness of this appeal. It speaks for itself. Wherever the name of Pharmacy is known, there is quinine and strychnine employed, and a moral obligation exists to hold in grateful remembrance the names of their discoverers. Pelletier and Caventou gave to the world, without money or price, the priceless boon of the knowledge of the existence of these alkaloids, and processes for their extraction, and it is not too much to say that this knowledge has saved in years past untold suffering to the human race. Quinine—discovered in 1820—is one of the few specifics in rational medical practice; and without strychnine—discovered in 1818—the physician of to-day would be utterly at sea in the treatment of diseased conditions of the nervous system. So, these discoveries of the two Parisian pharmacists shall live for all time, reflect undying fame upon their names, and the name of the science and art they practised.

Send in your subscription.

SHALL FERMENTED AND DISTILLED LIQUORS BE DISMISSED FROM THE U. S. PHARMACOPŒIA?

Very properly the decision as to what drugs and drug preparations shall be recognized by the U. S. Pharmacopœia, and what shall not, is governed by the

wishes of the medical members of the Committee on Revision. For this is a question of judgment that involves an intimate knowledge of the current details of every-day medical practice, a matter of which the pharmacist can have no personal knowledge. The work of the physician is the medical treatment of diseased conditions; the work of the pharmacist is the pharmaceutical treatment of remedial substances to the end that they may be best prepared for use in disease-treatment, and no amount of pharmaceutical experience in the compounding of physicians' prescriptions, regarding the frequency or non-frequency with which drugs and drug preparations are prescribed, can give the pharmacist the ability to accurately judge their clinical worth and fitness for pharmacopœial recognition. Because a drug or drug preparation is infrequently prescribed, it is no evidence of a lack of therapeutic worth. The occasions of diseased conditions which call for the use of the drug may be few and far between, but the drug may be none the less invaluable when needed. On the other hand, because a drug is frequently written for, it is not of necessity an evidence of superior therapeutic worth. There are fads in medical practice as in pharmaceutical, and medical "fashions" change with the years.

So, it has been the wise policy of the Committee on Revision in the past to leave the decision as to what drugs shall or shall not be officially recognized in the U. S. Pharmacopœia to its medical members, and there is no reason to doubt but that this policy will be continued in the future.

These thoughts are suggested by the fact that there has been a movement recently started by ex-President J. I. Morrison, of the American Pharmaceutical Association, and Dr. N. S. Davis, of the American Medical Association, to induce

the Committee on Revision to dismiss the fermented and distilled liquors from the United States Pharmacopœia.

President Morrison takes the ground that the sale of "liquors" by druggists has done an incalculable amount of injury to American pharmacy; that the Government has placed pharmacists who sell "liquors" on the same footing as saloon-keepers; that this condition of affairs should be terminated by the complete abolition of every form of dealing in fermented or spirituous liquors, and that a great advance in this direction would be taken if it were decided to discard all such preparations from the United States Pharmacopœia.

There is no doubt that liquor dealers masquerading as retail druggists—"using the liveries of Heaven to serve the Devil in," so to speak—have done much harm to legitimate pharmacy in this country; but the true remedy lies in legislating the liquor dealers out of the drug business, and not in prohibiting retail druggists from supplying a legitimate need to the sick.

If special laws of a wise character, regulating the sale of "liquors" in drug stores, were enacted in different States, and rigorously enforced; if "liquors" were sold in drug stores, as drugs only, in limited quantities, on the prescriptions of reputable physicians, legally held responsible for the proper use of the liquor prescribed, the cloud which rests upon pharmacy, in some sections of the country, would be removed, and there would be little difficulty experienced in inducing the Government to make a special distinction in its classification of retail druggists who sell liquors for medicinal purposes. Drive out the liquor dealers from the ranks of legitimate pharmacists, and the latter will cease to be associated, in the

public mind, with the liquor element, and will be respected accordingly.

So long as "liquors" are as generally used in disease-treatment as they are to-day, it is futile to talk about their dismissal from the Pharmacopœia. Were they not recognized by that authority, with prescribed standards of quality, there would be no medicinal standards, and the sick would suffer. The sick should not be punished for needing "liquors," nor denied the privilege of obtaining them of standard quality from pharmacists. Physicians will continue to prescribe "liquors" whether they be officially recognized or not, and pharmacists will continue to fill the prescriptions of physicians. Hence the Pharmacopœia will fail partially in its mission if it should fail to recognize "liquors," and demand standards for them.

We cannot see how the cause of prohibition would be advanced by dismissing "liquors" from the Pharmacopœia because they are used improperly in some cases. It would be very difficult to decide just where the line should be drawn, for it would follow, as a logical necessity, that if "liquors" were dismissed, then should opium, morphine, cocaine, coca, kola, and the like be also discarded. These are all used improperly by the public. Further, as was pointed out at the last Pharmaceutical Meeting of the Philadelphia College of Pharmacy, there

has come to this country, in recent years, a class of undesirable foreign emigrants, residents of the larger cities, who buy raw alcohol for manufacturing purposes, flavor it with aromatics, and make their own stimulants. Now, if the Pharmacopœia is going to discard whiskey, brandy and wines on temperance grounds, it should also dismiss alcohol, and the absurdity of such an action is obvious.

Dr. N. S. Davis, in his paper read before the Section on Materia Medica, Pharmacy and Therapeutics of the American Medical Association, at its last meeting, claimed that physiological experiments had shown that the presence of alcohol in human tissues, repeated from day to day, induced serious structural changes; but the therapeutic action of the drug, given only when required, by a skilled and conscientious physician, in pathological conditions, was not referred to at all, and yet the clinical value of a drug is the sheet-anchor of therapy.

We do not believe that the physicians of the country can see their way clear, as yet, to disuse "liquors" in medical practice, however much they may personally wish to do so, nor adopt the suggestion of Dr. Davis to use, as a substitute, a simple mixture of alcohol and water in fixed proportions, for the reason that the whole burden of clinical evidence is directly opposed to any such procedure.

Pharmaceutical Meeting.

The first Pharmaceutical Meeting of the Philadelphia College of Pharmacy, for the series of 1897-98, was held in the College Museum, at 145 North Tenth Street, on Tuesday afternoon, October 19, 1897, at 3 o'clock. J. W. England was made chairman. The reading of the

minutes of the previous meeting was, on motion, dispensed with.

Presentation of specimens was next called for. Dr. C. B. Lowe showed some fine specimens of asafetida, procured from Smith, Kline & French Company, of this city, they having received it in origi-

nal packages from Bombay, through London. He also showed some Japanese persimmons, from Florida, where they are grown considerably by grafting the wild variety. Prof. Trimble presented, on behalf of Charles Bullock, a collection of minerals and ores.

The reading and discussion of papers was next in order, and the first one presented was on "An Examination of Some Official Lead Preparations," by F. W. Haussmann. The paper reported extended and detailed work upon the subject of making "Liquor Plumbi Subacetatis," and referred also to the quality of commercial lead acetate, and of litharge. The process recommended for making Goulard's extract was simple and ingenious. It consists in adding selected *crystallized* lead acetate, previously broken into small pieces, to boiling distilled water, contained in a strong glass bottle and dissolving. Then the lead oxide, previously sifted, is added in divided portions, thoroughly shaking the bottle after each addition. In five to ten minutes, on repeated thorough agitation, the yellow color of the oxide will be changed to white. The mixture is allowed to stand for two hours, or until cold, and filtered with the usual precautions. The solution thus prepared will fulfil the requirements of the Pharmacopœia in all particulars.

The chairman spoke in complimentary terms of the eminently practical nature of the paper, and said that suggestions whereby official methods could be expedited were of great value to the work-a-day pharmacist.

Prof. Remington said that detailed methods, such as Mr. Haussmann described, were very valuable to the Committee on Revision of the Pharmacopœia, and that he had done pharmacy a distinct service by this work.

"International Congresses" was the subject of a paper by Prof. J. P. Remington. The author took a comprehensive view of the question of international gatherings, and, while he portrayed the ideal congress, he did not lose sight of the real difficulties which attend all such undertakings. He believed in considering conditions as they actually exist, and that by so doing, many of the hindrances which retard the successful issue of international scientific gatherings could be eliminated.

He said in part that :

"International congresses, in the writer's opinion, serve a most valuable purpose in bringing together pharmacists of different nations. Notwithstanding the difficulties of interchanging thought fluently, it is worth something to realize that progress in education, in scientific research and social advancement is constantly going forward; and, if abuses and obstacles are found in one's own country, it is some consolation to hear (even in a foreign tongue) that efforts are made to reform the abuses and to overcome the obstacles, and 'the fellow-feeling that makes one wondrous kind' is kindled. In all international and national gatherings, whether professional or otherwise, the social features are claiming more attention and recognition. It is true that there are many scientists who stand aloof from social entertainment of all kinds; others rail at them in public and private, but nevertheless are seen always at these entertainments. It may be assumed, however, that without social functions congresses would be very poorly attended. The pharmacist, over-worked, confined during the day and often a large part of the night within the walls of his dingy shop or laboratory, looks forward to a vacation in the heated term for a relief. If he can combine mental and physical

recreation by associating with his fellows and kindred spirits, and thus gaining, by social intercourse and rational pursuits, the much-needed rest, he has enlarged his horoscope, and becomes much better qualified to deal with the perplexing problems which threaten his existence, and has taken the preliminary steps toward that organization and united effort which will make him a power in the community, instead of a disorganized mass of disjointed entities."

A paper entitled "Balsam Copaiba, Oil of Copaiba, Mass Copaiba, Resin Copaiba and Gurjun Balsam" was presented by Lyman F. Kebler.

This paper embodied the results of an examination of a number of samples of the above substances. The author said that on account of the number of varieties of copaiba and the unknown composition of them, their qualitative analysis was attended with difficulty. The data presented by him was, therefore, intended to supply this deficiency.

He claimed that the present requirements of the Pharmacopœia for balsam copaiba (properly an oleoresin of copaiba) have undoubtedly wrought hardships for some well-meaning druggists. Only the solidifiable is recognized, and practically nothing but an unofficial article is used. In ninety-nine cases out of a hundred the average druggist is violating the requirements of the Pharmacopœia when he dispenses copaiba, and is thus rendered culpable, especially in some States. The requirements of the Pharmacopœia for oleoresin of copaiba (balsam copaiba) are also quite inadequate for the end in view. The range of specific gravity for solidifiable is rather too low; 0.9800-1.0173 would be better. On removing the oil, the residue may or may not be brittle, in the absence of any fixed oil. I have removed 90 and 92 per cent. of oil from

Para copaiba, and the residue was even then far from being brittle. The test for detecting gurjun balsam when the article is heated to 130° C. must be in error, since none of the samples of gurjun submitted to this test by me have ever congealed, but became only slightly more viscous. Such a test becomes worthless in mixtures. The other test for gurjun balsam is unreliable. The tests for oil of copaiba are fairly good. According to my work, the range of specific gravity ought to be a little greater. A test for oil of gurjun should be given. The specific gravity of the latter is a little higher than that of the oil of copaiba; gurjun oil is also somewhat darker in color, but in mixtures these can readily be adjusted.

In discussing the active constituents of copaiba, Dr. Lowe said that there seemed to be some misapprehension among physicians as to the particular effect of each of these. He said that the volatile oil had a stimulating action, while the acid resin was a diuretic.

The last paper on the programme was presented by the chairman, J. W. England, and was on the question—"Shall Distilled and Fermented Liquors be Dismissed from the U. S. Pharmacopœia?"

Notwithstanding the interpretation placed by many upon the attitude of the Government on the subject of alcoholic liquids, the author believed that the above question had no bearing upon the saloon question. He looked upon these liquids as drugs, and urged retaining them in the Pharmacopœia and demanding them of a certain quality.

He reported the results of examinations made of the acidity of seventy-five samples of whiskeys during the past five years. The number of cubic centimetres of decinormal sodium hydrate solution needed to neutralize 10 cubic centimetres of a sample, were as follows:

1893:—1, 1'1, 1'4, 1'8, 1'2, 0'6, 1, 1'1, 1'2, 1'3, 1'8, 1'5, 1'5, 1'5, 1'5, 1'5, 1'5.

1894:—1'4, 1'2, 1'6, 1'3, 1'3, 0'9, 0'9, 1'3, 1'3, 1'6, 1'6, 1'7, 1'7, 1'6.

1895:—1'7, 1'6, 1'4, 1'3, 1'3, 1'3, 1'8, 1'4, 1'5, 1'6, 1'9, 1'6, 1'8, 1'7, 1'4, 1'4.

1896:—1'2, 1'2, 1'1, 1'3, 1'7, 1'7, 1'2, 1'5, 1'5, 1'5, 1'5, 1'4.

1897:—1'6, 1'3, 1'3, 1'7, 1'3, 1'2, 1'3, 1'5, 1'3, 0'4, 0'5, 0'6, 1'6, 1'7.

The importance of the acid factor in whiskey examinations was dwelt upon, and the probability of the main acid in whiskeys being valerianic acid was referred to. It was also noted that the acidity of whiskey did not increase with age beyond a certain point. In May, 1895, the writer examined ten samples of whiskey. None of the samples were less than three years old. The results were in cubic centimetres of decinormal sodium hydrate solution used to neutralize 10 c.c. of whiskey, as follows:

1'7, 1'6, 1'4, 1'3, 1'3, 1'8, 1'4, 1'5, 1'6, 1'6.

The same samples were examined a few days since (October, 1897), and the acidity was found to be unchanged.

The remarks of the chairman occasioned considerable applause, and the subject was freely discussed by the members present.

Wm. B. Thompson was in favor of dismissing whiskey from the Pharmacopœia, since it entered into no official preparation. He furthermore believed that the official wines would serve their purpose as well if made with alcohol of the required strength.

Dr. Lowe was of the opinion that alcohol was the only therapeutic constituent of these liquids, but that the bouquet made them more palatable, which was an argument for retaining them.

C. Carroll Meyer, referring to the sale of liquor in drug stores, believed that druggists were honorable in this respect, and that very few of them sold it, except in Prohibition States, without the physician's order.

L. F. Kebler took the negative side of this question, and said that he had examined samples of wine and found many which were adulterated, and others which were artificial products colored with aniline dyes. He believed that many victims of the alcohol habit were attracted by the so-called bouquet, who might not otherwise have persisted in the habit. He urged the dismissal of these liquids from the Pharmacopœia on temperance grounds.

Social Meeting.

The first Social Meeting of the Alumni Association of the Philadelphia College of Pharmacy, for the series of 1897-98, was held in the College Museum, 145 North Tenth Street, on Thursday evening, October 21, 1897, at 8 o'clock.

After a few introductory remarks by the chairman, the Banjo and Mandolin Club of the Mt. Vernon Institute of Elocution and Languages, gave a number of very fine selections. Miss Helen

Bennett recited "The Two Pictures," and Miss Alphonza Walter rendered "Zenobia's Defence." The speaker of the evening was then introduced in the person of Henry Kraemer, a graduate of the Class of '85, who has been recently elected professor of botany and pharmacognosy in the College, and was accorded an enthusiastic reception. His address, on the subject of "Life in a German University," was as follows:

LIFE IN A GERMAN UNIVERSITY.

BY HENRY KRAEMER.

When a young man or woman in America chooses an intellectual vocation in life, sooner or later the desire and ambition is kindled to go to another land and clime and learn. This desire in many cases is not kindled to the flame of departure, because the student, for some reason or other, does not clearly see his or her way to go.

All students, who feel that they must go abroad, and do go, have been trained sufficiently, be it the study of art, music, literature or the sciences, so that what they are to attain really is a finish to a life work and calling already begun. The conditions for study are such that it is no doubt a good opportunity for the crystallization of one's life and purposes.

Long before deciding exactly on the time of going abroad, the students have become familiar with the works and writings of the masters in the studies they wish to pursue. They know in what cities and universities are the master minds whose works inspire their lives so much.

The great undertaking, as it seems, with the opportunities for study at the different universities and the results to be attained, have been discussed with all of one's friends, whether they appreciate or do not comprehend the magnitude of the venture. Some may even feel that you know enough and that it is foolish in you to spend time and money in going abroad.

All of the pros and cons are thought over and dwelt upon, and dreamed into, until, if you are true to your dreams, I have no doubt that the journey and venture seem like going to a land that is fairer and more productive than one's own land. And one, in the height of enthusiasm and purpose, does not expect anything but a smooth and pleasant journey into a land abounding in all of the treasures of the mind and the world, and which are to be obtained easily and abundantly on every hand.

Arrangements for the Trip.—Several months before making the trip it is well to have written to the different steamship lines for facts and plans of their vessels and rates for rooms and berths.

Regarding the location of rooms, my own experience leads me to believe that rooms near the centre of the vessel and upon the inside of the boat are more desirable. The motion is less perceptible near the centre. The ventilation is

better upon inside rooms than those upon the outside, even though the latter do possess port-holes. During bad weather the latter are closed and it is at this time that you are likely to be there. Then, too, it sometimes happens that the steward fails to close your port-hole during the oncoming of a storm, and your bed and clothes are soaked with water. Arrangements for rooms or berths are best made, if possible, several months before sailing.

To persons of limited means the question of selecting first or second cabin is to be decided. Of course, if you cannot go first cabin without stinting yourself or borrowing the additional money, go second-class on a good line, and I see no reason why, if you are an honest student with an honest purpose, you will not enjoy it.

Before making the trip it is a good thing to work off any excess of bile, and to be careful of one's diet for a few days or weeks before. If one journeys from the great West or South to make the trip, it is better that one tarry in New York City before taking the journey and become settled. Baggage is to be sent a day or two before the sailing of the vessel. It is necessary to have a steamer trunk in one's stateroom, and this contains one's winter clothes and also a carriage, or similar robe, to wrap around one's self as one sits in the steamer chair.

Regarding the taking of money, we found it best to make arrangements with the company of whom we obtained our tickets. We effected an exchange that saved us at least 2 per cent. If one has one's money in cash, and proposes to stay abroad at least a year, it is better to take it with them either in the form of letters of credit, or drafts from the steamship company. This may be deposited in the banks, and will draw an interest of from 3 to 3½ per cent.

The Ocean Trip.—On the day of departure of the vessel everything is about "ship-shape," although there are evidences of untiring activity on the part of every one. Friends of the passengers are there with farewell tokens of affection. Then comes the time for sailing. The gang-plank is withdrawn on the wharf and a few loud and prolonged whistles indicate the departure of the vessel, assisted by several tug-boats.

When she finally reaches the stream the friends of the passengers, who are congregated on the wharf, wave their handkerchiefs, and we observe the final indications of the bonds

between the two, and this is kept up by some with tears in their eyes, so long as they can see each other.

The first thing now to be done is to look up the purser, or deck steward, and have your steamer-chair assigned and ready for use, and then to see the steward regarding your place at the table.

If one sails about 10 o'clock in the morning one finds the air bracing and all are ready and eager for dinner. This meal is generally eaten heartily, and is frequently the last full and hearty meal that is eaten before one gets on land again.

The condition of the passengers depends upon the weather. If it is bad during the first six or eight hours this is sufficient to shake one's stomach up to such an extent that it rejects and ejects everything. Generally for a few days every one is nauseated and vomits. Those who recover soon make friends and enjoy the trip very much. After the third or fourth day out one gets into the cold currents, and winter clothes are necessary for comfort.

During the last days every one is eager and glad for the sight of land. When Scilly Isles are finally discerned in the distance, it is indeed a relief. And when the chalk cliffs of Dover are seen, and trees and houses are once more near at hand, one has the impression that the houses are far better and nature more beautiful than at home. And they who have been unable to leave their staterooms for nausea would be glad, I have no doubt, to see an old ash or dump heap, and consider it a delightful haven.

The Travelling by Land.—We are supposing that one is bound for Germany. Of course, there are many ways of reaching the different parts of Europe. Even in going to Germany one can go either directly, as to Hamburg; or indirectly, *via* Rotterdam, through Holland, or Antwerp, through Belgium. All of these have their advantages.

Before one reaches Europe one has already made out a plan of journey that one would like to take in going to one's university. One's baggage may be sent directly from the place of landing to one's town, and this saves the delay of inspection at the port, which can later be attended to just as well.

Regarding travelling, second-class is very good. A great many people journey third-class, especially for short trips, as the cost is about

one-third less than second-class. This is not desirable when taking long trips. One finds that the Europeans travel with a "hold-all," *i. e.*, practically a large valise to hold everything for the journey. Baggage otherwise is paid for separately from the railroad ticket. Regarding hotels, it is advisable to consult Cooke's list of hotels, and, after getting started with a desirable hotel in one place, use this in connection with the advice you can receive here regarding hotels in the next town you wish to visit. Breakfast is frequently reckoned in with lodging. It consists simply of coffee and rolls or zwieback and is generally reckoned at a mark. Shoes are left outside of one's door to be blacked and the tip to the porter is from 50 pf. to 1 mark for each time he blacks them. The girl who makes up your bed is tipped a small sum, and the hotel clerk expects and may charge a tip. It is an art in itself to learn when and how much to tip. A short journey even to important cities and places cannot but be a revelation to the student in many ways.

One is immediately struck with the historical associations. The works of centuries and the deeds as well as homes of martyrs and masters are carefully preserved, enshrined and honored. In the museums are the masterpieces of the masters. In the streets and in the mountains are the statues honoring the great and noble. Wherever one goes one sees gleams of immortality realized in stone and wood and tongue.

One is struck with the class distinctions. The poor peasants in their peculiar dress are readily distinguished from the rest. Their wagons are more frequently drawn by cows than by horses. Their little push-carts are drawn by dogs which are generally harnessed underneath the cart, and the peasant, while adding some power, apparently only guides the cart. These poor people, in one sense, live upon a black bread, cheese and sometimes sausage. At lunch in the morning they are to be seen dividing their portion with the dogs who are so grateful for a hard old crust. These people, however, are the gayest and happiest, and, no doubt, indeed, are the bone and sinew and strength of the nation.

One may be surprised in visiting the zoölogical gardens, floras, palmgartens and other places of this nature, that they are practically pic-

nicking places and avenues of amusement. In all of these are tables and seats underneath carefully-trimmed shade trees. Many people bring their lunches with them, and order beer, wine or coffee. The women always have some handwork and talk with each other and the men who smoke. In the afternoon and evening concerts are given by the military bands or famous orchestras, like that of Straus, as in Cologne. This is what the Germans, who come to this country, miss so much.

Upon reaching one's destination, one finds it best to go to a hotel for a few days before securing lodgings.

You must not tell people that you are an American when you want to buy anything, although they find that out quickly enough from your dress, if not from your speech. If you do, you must pay for the distinction. We went to one Pfarrer for rooms. She lived in an apartment house, and occupied the fourth story. She had two large rooms with slanting roof, for which she asked, exclusive of meals, 150 marks, or nearly \$40 per month. We afterwards obtained two nice rooms at 20 marks, about \$5 per month. Our breakfasts and suppers cost us a mark a piece for each meal. The breakfast consisted of a cup of coffee and two rolls, with butter and syrup. The supper consisted of potato salad, sausage, bread and butter and tea. Our dinners cost us from 1 to 2 marks, exclusive of beer or wine, which was charged to us just the same, whether we took it or not. Apparently the profit of the meal is derived from the beer or wine you buy and not what you eat. We had to provide fuel and light, and, in a great measure, furnishings for our rooms, and finally made it so that it did not cost us any more to live there than here. This is the safe basis of calculation. It may, however, cost you more at first.

The German students get their rooms, with breakfast, for a whole semester, and do not pay more than 50 or 60 marks. You could not live as they do, however. I want to say this: in going abroad do not make comparisons in the shops with the prices you pay here and there. It only reacts on you or some other American. I have known young men to go into a store for a suit of clothes or pair of skates, and, when told the price, exclaim: "Why that would cost twice that much in America!" The effect is to make them charge twice the price to an American, and really the comparison is not true. I am

satisfied that I can live cheaper comfortably here than I could there.

Before one has obtained suitable rooms and secured meals that are acceptable, one meets a foe that, while exceedingly minute, is omnipresent abroad apparently. One has an itching sensation on one's body, and one observes an increase of reddish spots on the bed clothing and on one's clothes. This may alarm one. It did us, and we called the woman (not lady of the house, as the Germans have four classes, viz.: (1) nobility; (2) professors and those educated in a university; (3) above the peasants; and (4) banern, or peasants), in to understand what this meant. She looked at us in astonishment, smiled inwardly, and told us that they were only fleas. I had been previously acquainted with jiggers, bed bugs and various lice, and now we were introduced to the last of the great pests—the flea. Now, fleas require your attention. They come from the banern evidently. As you see them living in their villages you do not wonder that they have fleas. As you pass through their dorfs (villages) you see generally a large dung heap with stagnant water in front of their houses. In the basement, or rather first floor, is the stable for the poor cow, that must provide milk and do the work of a horse. On the next floor or two, the people. I have seen, towards evening, the geese climb these stairs, and have thought that they must lodge somewhere there.

Now you come in contact with these banern on the street, in the market places, and more especially in the churches as you sit by them. The girl who cleans your rooms and blacks your shoes is a banern. So it is almost impossible to get away from fleas, especially in the fall of the year.

So much for a few of the necessary points for one contemplating a European trip. Now we will consider more closely the student at the university.

University Work.—The work at the university is divided into two courses per year, viz.: A winter semester, extending from October 15th to March 15th, and a summer semester, from April 15th to August 15th. Practically, however, they begin about November 1st and May 1st, and end about March 1st and August 1st, respectively.

Matriculation.—The entrance requirements to a German university are, to a German, that he must have passed a "Gymnasium" or "Real

Schule." This is about equivalent to our undergraduate university work, or the work of our best high schools. The foreign student must present either a university or college diploma or passport. It is best to have both. The passports are obtained for a small sum upon application to the State Department at Washington. I have known students to be compelled to journey to the nearest city where a consul was located in order to get a passport, as in some places they are insisted upon. The matriculation days at the university extend for a period of about three weeks, during the first part of the term. The different faculties have about four days set apart during this time for the students to matriculate. Now in order to have things go smoothly you must realize that the title of the secretary is Herr Kanzlei-Rath. You must approach him in the following form: With your hat in hand make him a low and profound bow, addressing him as Herr Kanzlei-Rath. He will respect and help you if you honor him thus. If you do not do this he may be curt, and even ask you why you came there. This need not concern you; you will soon have many occasions of displaying the American gentleman, which you must be. Your matriculation fee is 15 marks and 30 pfennigs. He gives you a matriculation ticket upon which he puts your name and house number, and finally his signature. Upon the latter he sprinkles a little bronze or gold dust. The matriculation ticket you ought to have with you always. It will assist in your identification and may be useful.

With your matriculation ticket is handed you an announcement of the lecture and laboratory, courses for the coming semester, and a blank-book with a black cover. Having made up your mind what courses of lectures you propose to take, you go to the Treasurer or Kassenrendent. He examines the list, puts the price of each lecture or laboratory course opposite the same, and adds the whole up. Some of the lectures are open and free to all students of the university. The fees of the others are moderate. The laboratory, fee for a semester is 40 marks, or \$10. From 5 to 20 marks for the lectures, many of which are held five days per week. In addition to the fees you must pay 12.50 marks for various things: 5 is auditorium-geld; 1.50 for Krankenkasse (a kind of beneficial fund that pays for your being attended in case of sickness free of charge for a certain length of time). Then 1 mark is set

aside for janitor's services, and 5 marks is paid as Honorar. The whole will not count up more than 100 to 200 marks, and when paid this book must be presented to each lecturer for his signature and date of registration. The lecturer must also sign the book with date at the last exercise that the student is present.

The fact of one's having paid the fees still does not make him a student of the university. On a particular day after the last matriculation day, all those who have matriculated assemble in the auditorium, and the rector (whose position corresponds to that of the president of our universities, but is elected annually from among and by the faculty) gives each student a scroll with the seal of the university and the signature of the rector of the university and the dean of the faculty in which you study. This makes you a matriculated student.

The Work.—The lectures begin in summer at 7 o'clock, and in winter at 8 o'clock. The lecture-rooms are plain, and similar to those of our own universities (possibly not so good). The lectures begin on the hour. Before the entrance of the lecturer the students are engaged in talking and smoking cigars, which is stopped as soon as the lecturer appears; and immediately the students rise to their feet, and remain standing until he reaches his desk and begins his lecture with the familiar "Meine Herren."

The lectures are, as a rule, brilliant and well illustrated. The most prominent feature in all of the lectures is the attention devoted to the Fundamental-Versuche or Fundamentalsätze (foundation experiments and principles), of the subjects treated. They are wonderfully clear, and one observes the master in these things. Each principle is so well illustrated, and clearly put, that it seems that a child could understand it. This is the secret of the power of the German universities—their thorough comprehension and mastery of the principles underlying the subjects which they treat. They show such an assimilation of these things that it is no wonder that they are so rich in scientific discoveries.

The Laboratory.—If one has done any original work it is useful to bring evidences of the same, although the director will put the matriculant upon various pieces of work to test his abilities to do things alone. If these are accomplished successfully an *arbeitszeugnis* may be undertaken. This is a thesis leading to the degree of doctor. If the student shows incom-

petency, he is advised to work along certain lines first, and, when he is considered proficient, he is told that he can undertake an *arbeit*. The professor generally assigns the subject. Now, a great deal lies in the subject selected for you as well as your own abilities. Before the *arbeit* is completed, you must have discovered something and gotten some results. The securing of the latter depends, among other things, upon the condition of the knowledge of the world. Take the subject of disease germs. If one had tried less than twenty years ago to work this out in any one disease, it would be equivalent, as Bal-four Stewart puts it, in "The Conservation of Energy," to the study "of a world of creatures of which we know as little as of the inhabitants of the planet Mars."

The professors do not generally consider the value of time in the life of the student. If you are earnest and able and not careful you may spend a great many years abroad engaged in special work of interest to the professor, but which will not yield you any returns. Sometimes the only recourse is to go to another university. An American does not like to do this, but it is not infrequently done by German students themselves.

When the *arbeit* is attempted the student "must paddle his own canoe" as under other circumstances. The director may not display much if any interest until results, which will honor him, are forthcoming. Of course there are professors who are interested in you and your work and are of great assistance day by day.

You will find that there are sometimes strong personal feelings manifested among members of the faculty. There is, in some cases, marked animosity when, for the good of the student and university, there should be friendship. The result is that a student may be advised contrary to his own interests and inclinations by reason of one plea or other, but which is really a personal feeling against some member of the faculty. This is unpleasant, to say the least, abroad as well as at home. But you feel it more abroad, possibly because your work is largely elective, and you desire to please your professor if possible.

The Societies.—During the days of anxious plodding and study, the American student becomes acquainted with the German students and their thoughts and ambitions and modes of

life. One of the most striking things is the student with his little colored cap and ribbon, his cane and dog. The colors are different, and one soon learns that they represent different clubs or *korps*. The purposes of these societies are several, as I take it :

(1) To encourage good fellowship among the students and to provide for his enjoying his "*akademische Freiheit*."

(2) To prepare them for fighting for country and king. For, as Marion Crawford puts it in the address of Greifenstein to the *Korps*: "Happy were those who merely exchanged the whistling blade of the student for the heavy sabre of the soldier, the green forest glade of the *mensur* for larger battlefields and the hope of brighter fame, who, having shed an ounce of blood in defence of their student colors, could look forward to shedding all, to the last drop, for king and country."

There are duelling and non-duelling *vereins*; to the latter class many Americans belong. Very seldom do Americans join the societies that require duelling. Otherwise than in regard to duelling, all of the *vereins* evidently enjoy the same pleasures.

On entering a *verein* there is some one in the *verein* that takes it upon himself to be your father. His father is your grandfather, etc., so that immediately a family relationship is entered into. Before a student enjoys all of the privileges and freedom of membership he is a "*Fuchs*" (fox). He does all sorts of menial acts other than those done by the *diener* or servant of the *verein*. He must serve first and show himself worthy of being a "*mitglied*."

One of the first things that he must be able to do is to drink a specified quantity of beer. I am not quite sure of the quantity required at first, but it is certainly between twenty and thirty large glasses of beer in one sitting of from four to eight hours, generally from 9 o'clock to some hour in the morning. At first, of course, the students, as a rule, cannot stand this. They are, however, cared for by their fathers and relatives, who see that they reach home. He is put to bed frequently, I am told, with clothes and boots on. He makes a mess of everything, and lies in this condition until probably noon or later, and then emerges, with cap and colors and cane, to greet his loyal friends.

By the end of the first semester the lean young man has become fat, or more truly

bloated. He looks well in mother's eyes, and his good humor attracts his sisters, who, it may be, are economizing and providing the means of his going to the university. At home they all think that study agrees with him, and that if he is a theological student, he will be a great preacher, etc.

The Duelling.—In the meantime the student takes up fencing, and, after a time, he is ready to go to the battlefield and begin his contests. He must fight so many duels, and, as a rule, he is eager for the fray. These contests are easily arranged, indeed. All that is necessary is for one student of a *verein* to feel that he would like to fight another of another society, and then to take up some innocent or hasty word, or move against him hurriedly, on leaving the lecture-room. Then follows a presentation of cards and the announcement to the head man of the *verein*, who arranges for the fray as soon as possible.

Sometimes a man who is not a member of any fighting *verein* may wear the colors of a *verein* and fight a duel with a member of another society. But this is only allowable on the payment of a good sum of money.

Saturdays are generally set apart for fighting. The duelling begins as early as 4 o'clock in the morning, and may continue till 4 o'clock in the afternoon. It is carried on in one of the suburban "*Wirtshäuser*" (taverns). The students frequently go from the *Kneipe*, where they have been drinking and singing until early morning. They continue their drinking during Saturday and sometimes Sunday.

At the time of duelling the *Wirtshaus* is a sight indeed. The duelling is forbidden by law, but the students are always on the lookout, and seem to know when the police may come, and arrange that all shall appear serene and orderly.

The fighting is carried on in a separate room, usually quite large. In the adjoining rooms the students sit at long tables—the different *vereins* being congregated together—drinking, smoking and eating. They are laughing and talking either over the fights that have taken place or are to take place.

The fighting room looks like an operating room. On either side are long tables strewn with gauze, absorbent cotton, instruments, iodoform, etc. Several surgeons are ready, with sleeves rolled up, to dress the wounds as they occur.

The combatants have their necks bound and wear glasses. The wounds occur on the head and face entirely. Each carries a sword high up in the air, and is assisted by one or more fuch's in this. The seconds wear a large glove extending to the shoulder, and the material resembles the chest-protector of the baseball catcher.

The umpire, with book, pencil and watch, is in position to see the fight to the best advantage. The combatants face each other, and, when all appears ready, the umpire asks: "Are the combatants ready?" (*Pankanten parat*). They reply "Ready" (*Parat*).

The umpire then cries "Silence! To the battle; ready, go it." (*Ruhig! Auf die Mensur! Fertig! Los.*) The combatants are very close to each other. Their right feet touch one another, and their swords play apparently high in the air. Now and then it comes on the head or face of one or the other. No one ever flinches, as this is an eternal disgrace. After they have fought for some time and pieces of scalp have been flying or wounds inflicted on the face, the seconds interfere with their swords and cry halt! The surgeons examine the wounds, and, if sufficiently deep and severe, the injured man is ordered, by the command "*Abfuhr*" of the surgeon, to be removed. The duel ends. Otherwise it continues until one or both are decorated handsomely.

This drawing of blood is enjoyed with a keenness by the onlookers, as well as the combatants, to an extent that nothing short of a hungry wolf can comprehend. The surgeon applies his iodoform and absorbent cotton, and is requested to leave the wound as far open as possible, so that it will produce a large scar. The larger the scar the greater the honor apparently, unless it be that a larger number might count for more. After the battles the wounded don their caps and colors and go about the streets with their canes and dogs, much to the admiration of the young ladies, some of whom are always out on the streets at that hour, waiting to see the heroes of the *Schlag*.

After the first week or two at the university, there is never a time when many students are not to be seen with their fresh wounds in the lecture-room and on the street. It is not likely that this inspiring custom to them will be done away with soon. In Marburg a student of philosophy, Mr. Gideon, was attracting some stu-

dents to athletics, like football, etc. They were responding with some enthusiasm and interest, and it is to be hoped that some day they will eschew the duel for the athletic sports that have been enjoyed now for some centuries by the rest of the civilized world.

Akademische Freiheit.—An American wonders at the laxity of the Faculty regarding the attendance of students at lectures, etc. I have seen a continuous daily attendance at some of the lectures during a whole term of only but 10 to 25 per cent. of the students, who would turn out at the first and last days of the lecture course in order to have the signature of the professors in their books.

This freedom to do as they choose—to absent themselves as often as they please—this “*akademische Freiheit*”—is sacred to the student and professor, too. It is to the pecuniary interest of the professor that the student stay at the university as long as possible. The student is anxious to have a good time as long as his family will provide him the means.

When they are told of our method of keeping track of our students they say: “*Das geht nicht Hier.*” If you insist that this is the proper way of getting results, they say: “Yes, at the sacrifice of freedom.”

We soon see that American institutions are built on an entirely different basis. Our forefathers, in settling a new world, determined to profit by their past experiences at home, and so, not only in affairs of the State, but also in our educational institutions, built them on the basis which would prove stronger and truer to the great nation she was destined to be with the progress of time.

We are educated to one thing and they to another. For them to do differently it would require that they build all over again. Historical associations and traditions are sacred to them, and hence in Europe many things which require changing of existing conditions are not possible. With us there is but one thing, and that is the best for the time. In America there is opportunity for expansion and growth. In Germany, the old is good enough. With the Germans, the matriculation at the university means license to do as he chooses. With us, it is liberty to attend to business and get the most out of it, or necessity to quit college and do something that is productive to the State. Then the competition is so strong and the desirable places so few that no

encouragement dare be put forth that any one shall aspire beyond what he survives to do. “The survival of the fittest” in man is exemplified there.

Facilities at the University.—It will be found from the following that the German professor does not care to teach. Once when in the private laboratory of one of the professors who was engaged in writing a work of practical benefit for his pupils, he asked me jokingly, as I took it at first, “If I thought it paid one to go to all this trouble for one’s students.” I looked at him and saw that he wanted an answer, and said: “In America a professor feels that he is paid to do this sort of thing, and that he cannot go to too much expense to present matters so that they are easily assimilated.” He said: “With us this is not the case. I am paid first as a professor, and secondly as a teacher.” In other words, you may find the professor at the university, but the teacher may be absent. The cage and the bird may be there, but the songster may not be found.

The lectures are forty-five minutes long. Fifteen minutes are allowed for the students to go from one building to another. For instance, you attend lectures on botany at 7 o’clock in the botanical institute. One in physics, at the physical institute, at 8 o’clock. Another in chemistry, at the chemical institute, at 9 o’clock, and so on. These buildings are situated in different parts of the town and require from ten to fifteen minutes on the part of the student to get from the one to the other.

As I have already said, the students rise to their feet upon the entrance of the professor. If a student is late there is a shuffling of feet, and consequently a man who is late will not generally enter.

The laboratories are well equipped and the botanical gardens are well arranged, and serve the purposes of education admirably. The method of caring for them is exceedingly ancient. The young women (*Banen*) are practically the workmen. They spade the soil and put in the seeds. In watering the plants they use large watering-cans and each girl carries two. After the seeds are sown these girls are kept busy carrying the water from the little lake to the plants that require it. They would more than save the cost of labor in one year in providing suitable pipes and using hose for this purpose.

I was particularly struck, at the palmgarten in Frankfort, in seeing a number of men, with hand-scythes, cutting the grass, followed by one, with a pair of large shears, trimming the edges. What was being done by six men, and requiring possibly a week, would have been done in America by one man, in no doubt a day, with a small lawn-mower.

Regarding the wealth and storehouse of literature in Germany, one will not find everything, as has sometimes been said. The libraries of the different universities, however, are in touch with each other and publications of one are loaned to students in another. The transportation fee is about ten pfennigs per volume, which the user cheerfully pays. When a book or books are desired, the title is put on a printed slip. The signature of the professor is necessary. The slip is handed to the diener of the institute who presents it at the university library. In a few days he brings you the book generally.

One of the most pleasant features at the universities are the collegiums, or seminars. At these meetings books and articles are reviewed and discussed. They are very instructive and interesting. While in Chicago, last winter, I attended similar meetings at the botanical department of the University of Chicago, and I was pleased to see equally as good discussions as I had observed abroad. I am also aware that in other departments of work in this country seminars are frequent and instructive.

Kneipe and Kommerse.—The American student is generally anxious to see how the students live and enjoy life, and the Germans are very kind and willing to bring them in touch with their associations and amusements at the Schlag (to which I have already referred), Kneipe, Kommerse, etc. The Kommerse is practically a public Kneipe, and a few words may be of interest. These are held in one of the large public halls. Friends of the students are admitted by invitation, and these usually occupy the seats in the gallery.

The main floor of the hall is given up to the students of the verein or vereins that enter into the celebration. There are long tables, with chairs arranged in the middle. The decorations of the hall under the best auspices is given in the language of Marion Crawford in *Greifenstein*: "From the rafters to the floor vast draperies of colored stuffs were hung and festooned so as to show off the insignia of each as-

sociation to the best advantage—panoplies of swords and helmets; escutcheons, with broad bands of gold, silver and black; scores of richly mounted drinking horns taken from every kind of beast: from the Italian ox, from the Indian buffalo, from the almost extinct ibex and from the American mountain sheep—gifts from old members of the korps who had wandered over the world, but had not forgotten their old companions; silver tankards, upon brackets; old standards, of softened-hue, projecting out above, or crossed above coats-of-arms. In short, every object of beauty and value which had become the property of the Swabians during the last fifty years. Every other korps had done the same till not a foot of the walls was left bare."

In front, at places of honor, are the seats for the professors, who turn out to be students again and grace the occasion. In one part of the hall are musicians, frequently the "capelle," or band of the army.

The drink of the evening is beer, and a sufficiency is provided, being about thirty glasses for each person present. The students, guests, and their friends assemble. All are in full dress, but the dress of the students is particularly striking. His pantaloons are close-fitting and made of white kid. He wears riding boots that are black and polished, and the flaps extend above the knees. His coat is either a dark velvet and plain or trimmed with some handsome designs. On his head is either a large hat, with large plume, or a small handsomely-embroidered hat that sets on the front of the head. It has the shape of a crystallizing-dish and would not have fit his head when he was an infant. This is held in place by a piece of elastic tape that is more or less concealed. His hands are covered with a pair of white leather gauntlets. Over his right shoulder are the colors of his verein, which extend to the left side near the hilt of his sword.

At the hour appointed the president of the korps with his marshals rap three times with the flat side of their swords upon the table, and the assemblage is called to order. The president welcomes the members and friends and guests and dwells upon the history and usefulness of the korps to the university and the State, and calls to mind the grandeur of the university and the ability of the faculty. At the close he drinks and gives three cheers for the university. With glass full of beer in hand,

which he raises high in the air, he exclaims, in which the music joins: "Hoch, Marburg, Hoch!" Whereupon the members rise and likewise raise their glasses, crying "Hoch! Hoch! Hoch! ad exercitum Salamandri, eins, zwei, drei!" With one gulp they drink one-half and then replace the glass in the little hard-rubber saucer and rattle the glasses in a manner that can be only done successfully, without spilling the beer, with practice. The guests and others respond to short addresses. Songs are sung until the early morning, and they all feel what a jolly time they had and look forward to the next public meeting with anticipations of joy. Such evenings are common with the students in Germany.

The Road to a Professorship.—The steps to a professorship are interesting. Seldom is it that a young man attains this goal—although now and then it occurs. I believe Goebel, who is now at Munich, was an *ordentlich* professor at the age of twenty-six. This involves opportunity, as well as work and ability.

He serves first as an assistant, for which the salary is 100 marks (about \$25) per month. He assists the professor, and, if he is ambitious, he grinds away, doing original work, and aims to bring out something so that he may be made a *docent*. When he attains the latter, he does not receive a fixed compensation, and it sometimes happens that a man is *docent* and assistant both. When he becomes *docent* he delivers lectures, and the fees are his, certainly in part. He must entertain and make friends, and, of course, he needs money. Consequently, most assistants, if they are poor, already are looking around for some rich young or old lady to support them, as this is what it practically means. Abroad, the parents of the girl furnish the home, and, in many cases, provide for the daughter and son-in-law until he can make something.

As *docent* he continues, until, by the publication of a book or some other original work, as well as by his friends in the faculty, he is made *ausserordentlich* professor (kind of assistant professor). Here he may labor for years, working, writing and lecturing. Finally, if he lives long enough, and is called to another university, and chooses to go, or the professor at the university where he is, dies, he is made professor.

This entitles him to attend the meetings of the senate or faculty of the university. He is now

in power, and is all-powerful in his department at the university, and this position he holds for life. Now he begins to live and enjoy life, if he has struggled with poverty. It sometimes happens that a man will wait until then to marry. This is unusual, however.

He may be honored by his associates—the faculty. If he is a good fellow and knows how to make friends, and does good work, he may be honored with the title *geheimrath*. He may be made rector, or president of the university, when his signature is attached to the diplomas of the graduates and the certificates of matriculants of the university from all over the world.

The wife shares the title of her husband in Germany. If he dies she still has his title, and she and her children are provided for by the State—the children until they attain maturity, the wife as long as she lives.

I think that this is a grateful recognition, as the wives unquestionably share in the life-work of the great men whose names the world honors. I remember Frau *Geheimrath* Wigand, the wife of Professor Wigand, the author of the work on *Pharmacognosy* (on which Professor Maisch evidently based his *Materia Medica*), telling us how, in their early married life, she used to help her husband labelling specimens, etc., at the university.

Etiquette of the Germans.—In Germany strangers make the first call. Early in the semester the student must pay a *Besuch* (visit) to the house of the professor and professors under whom he receives instruction. This call is a brief one, and should not extend beyond five minutes. It is generally made on Sundays, between the hours of 12 and 1. The student, according to custom, wears a frock coat, a high hat and a pair of kid gloves.

Some time in the course of the next few months the professor will invite you to dinner with some others. This is, indeed, enjoyable. He and his wife entertain royally, and you have, no doubt, never had a better time. If you are unaccustomed to drinking wine you will find that they are considerate, although you will enjoy it more if you drink with them.

The Germans are very ceremonious. The men take off their hats to each other as well as to the ladies. By the salutation, *i. e.*, depth of bow, smile, etc., you can judge the esteem in which the people are held.

Little by little you get into the life of the Germans, and, while you may not agree with them, still you are satisfied that if you were born in Germany you would do just as they do, providing you did not know any better, and could not do any differently.

Graduation.—Finally, in order to “*Promovir*,” that is, be a candidate for a degree, the student generally works from two to sixteen semesters, or one to four years. One cannot come up for examination until an *arbeit* (thesis) is finished to the satisfaction of the professor of the department, and he is further satisfied that if you come up you will pass the examinations and are worthy of the title doctor. The subjects in which you stand examination are a major, two minors and philosophy. If a student takes chemistry as a major, he chooses mineralogy and physics, probably, as minors. If botany, he selects physics and chemistry, etc.

When the *arbeit* is finished it is written in either Latin or German, generally the latter. In some cases it is written in French or even English, by special permission.

A short *lebenslauf*, or biography, must be presented with the *arbeit*.

The fee for the final examination is 225 marks.

The *arbeit* is taken to the dean of the faculty, with the *lebenslauf*, and the receipt from the secretary for the payment of the sum of money.

He sends the *arbeit* with the *lebenslauf* through the *pedellen* of the university (to whom you pay a few marks) to all members of the faculty in which you have studied. They pass on it, and, in from two to four weeks, it is returned to the dean. In order that it will go through rapidly, you must pay the *pedellen* an extra fee of from five to ten marks. If there are two *pedellens* and you pay one a fee, do not be surprised if the other comes to you with some excuse—really because you gave the other fellow ten marks—to get ten marks also.

If the *arbeit* goes the rounds satisfactorily, the dean announces to you the time for holding the examination. You must then, with dress suit, white kid gloves and high hat, visit each of the professors under whom you are to be examined and invite them to your examination. He gives you his chair of honor and asks you what lectures you heard, and you may think that he will examine you along these lines. But you must not for a moment depend on this.

Your examination is held in the senate cham-

ber of the university and you must present yourself in dress suit, white kid gloves, and high hat.

When you reach here, the castellan, or janitor, is exceedingly nice, and you are expected to pay him five marks—for what, I do not know. Possibly because he has cleaned the hall, or looks after your coat.

Your examinations are oral, and they last, with little intermission between each, for about four hours. The professors do not come in their dress suits, and each one comes at the appointed time to examine you. The dean remains in the room during the entire time, and the faculty give him the results. At the end of your examination, which is a searching one, and a gratifying one to you if you know your subjects well, the dean announces the result.

There are several grades: *rita*, being passing; *cum laude*, with praise; *summa cum laude*, with high praise. The last is very seldom received, either by foreigners or the Germans themselves. More generally the first is given, I believe.

The dean, in announcing your result, tells you that when your *arbeit* is published and the university receives 200 copies, your diploma will be sent you.

Your professors will request fifty copies of you, and the printing, with plates, may cost you from 100 to 1,000 marks, or even more. To graduate in Germany is an expensive affair, although the lecture and laboratory fees may be small.

After the Examination.—Immediately after the examination the German student takes a carriage, with some friends, and goes to a *Wirthshaus*, where a bottle of champagne on ice is opened. They drink a little and then take the carriage again and ride over town, shouting that another doctor is made. They repair to the *Kneipe*, or the hotel, and drink freely, for which they pay heavily.

The American indulges a little and is glad that it is all over, but his thoughts tend homeward. He may take a trip to the Alps, or up the Rhine, or to Paris, London, or Berlin, if he has not already done so.

He makes the trip as he came, and he is glad to be on the way to his native land. He realizes that much has been learned on this sojourn away from the possible distracting cares at home. He has many a time longed to be home, and the letters from friends have been very insufficient to supply his wants. He has had time to think of the land of his birth. He sees that all nations

have troubles of their own and that those of our own country are really insignificant to those abroad. And when at last he sees the sun shining on the mountains and valleys and cities of his home, and sees the forests and the streams, and hears the songs of the birds and language of his native land again, he rejoices and thanks God that there is an America and that he is born an American.

He compares the resources of our country and the opportunities of our working classes with those abroad, and he feels that our resources and our labors ought to be protected. While he may feel that immigration should be restricted, he thanks God that this haven of hope is still open to the oppressed and deserving of the old world.

He realizes, probably for the first time now, that the world is directing its whole circulatory system to America, and that America is the great heart from which flows not only gold and products of the soil and manufacture, but also is beginning, at least, to supply the labors of the mind and heart in many ways. It not only produces for every land, but it also receives from every land.

He understands now how Agassiz should refuse a professorship at Geneva, and refuse "to be the happiest, the most honored," and how, later, at the age of thirty-nine, he came to America to lecture, and in two years he accepted the Chair of Zoölogy in Cambridge. In 1855 came to him a call from Zurich, an institution of his native land, which he refused. His reply to Professor Oswald Heer is worthy of repetition in its entirety, but I will only give a few extracts. He says: "I have now been eight years in America, have learned to understand the advantages of my position here, and have begun undertakings which are not yet brought to a conclusion."

"It is true I miss the large museums, libraries, etc., as well as the stimulus to be derived from association with a number of like-minded co-workers, all striving toward the same end. With every year, however, the number of able and influential investigators increase here, and among them are some who might justly claim a permanent place anywhere."

"I have decided to remain here for an indefinite time, under the conviction that I shall exert a more advantageous and more extensive influence on the progress of science in this country than in Europe."

This is what Agassiz saw in 1855. A little more than forty years afterwards we are beginning to see what he so clearly saw, that this was to be the "land of the future," as he put it.

To-day there are very few things that one can learn better abroad than here. The getting in touch with the foreign associations and the spirit of work and literature is the biggest gain. Our students who gave gone abroad during all these years have been steadily at work, and all our university courses are being molded according to the best there is, not only in Germany, but the whole world. An American is never satisfied with anything short of the very best and until he has seen what others are doing.

So my advice to the student, who sees his way clear, is: Go abroad; you will learn much.

It is true that they do not have the best of everything, nor is it the source of all knowledge. But you will find some masters and scholars and men and women who fulfil your ideal. The associations and the recollections will ever be remembered by you as a great benefit and pleasure, and will help you in your life-work here in America. Finally, it will make you appreciate your own country as nothing else can do.

Class News.

SECOND YEAR CLASS NOTES.

—Ask Dick Gasoline what the natural order of Fig is.

—Crain is making a collection of hats. "Hats off!"

—Professor Lowe has a pet leech. He keeps it for the amusement of the girls.

—Hats off, down in front! Take a back seat.

—Have you seen our President and his pipe?

—Just out: "How to Raise a Hirsute Appendage." By C. A. Ball. For sale by the Janitor.

—Dr Morison, our new instructor, is all right.

—What does Professor Remington want Moerk for?

—Professor Kraemer is all right—at least so the football committee say.

W. S. RYAN,
W. P. GRADY,
Beta Phi Reporters.

CLASS NEWS.

—Dr. J. Louis D. Morison, the new Quiz Master on Materia Medica, Botany and Pharmacognosy, is very popular with the students.

—The Dean of the College has a splendid trip promised to the boys down in the wilds of New Spain. Time: latter part of the month.

—The Y. M. C. A. Branch of the P.C.P. is "all right." Have you heard the latest? Well, their latest is a "fair" in sight for the boys.

—The Zeta Phi is now in full swing. Various schemes are on foot to advance its interests, and President Evans and his co-workers are doing all in their power to make the meetings interesting and the society a success.

—Since the last Alumni Social Meeting, when Professor Kraemer pictured so delightfully the life of a student in the German University, many of the boys have commenced to study Ollendorff, and are cultivating the acquaintance of the genial Quiz Master on Chemistry, with a view, doubtless, of getting practical experience in speaking the German language.

—In compliance with the wish of the Social Meetings Committee of the Alumni Association, the Zeta Phi has appointed a Committee on Social Meeting to co-operate with it. The Alumni Association is pre-eminently the students' friend, and stands ready and willing to do all in its power to make the stay of the students in the College as pleasant as possible.

—Dean Remington says that he is heartily in favor of any movement that fosters the true college spirit among students. College days come but once in a life-time, as a rule, and one of the most pleasant things upon which memory can linger when the students of to-day become the staid and gray pharmacists of to-morrow, is to look back again to the time of student days, when all was bright and cheery and full of hap-

piness with the enthusiasm and optimism of youth.

—The many students of the classes of the P.C.P. are now buckling down to hard work. While the course of instruction in the College has been made still more rigorous than of yore, all the work is now done during the day-time, and not at night when the brain and body have been tired out by the duties of the day. Further, the instruction is systematically graded through three courses, and this makes the work easier to cope with. Altogether, we are satisfied with our lot at the P.C.P. as students, and intend making a record for ourselves and the College.

S + KClO₃ = ?

HE KNEW IT—BUT HE DIDN'T.

Had started just to college
And thought he knew it all;
For he was a "first-year man,"
And talked exceedingly "tall."

But it chanced one day to happen,
When left alone by himself,
He tried to fill a prescription,
And now he's on "the shelf."

He took a wedge-wood mortar,
And a little pestle, too;
He couldn't find the P. Pot Chlor.,
So made the "crystals" do.

It was Pot. Chlor. and Sulphur;
Into the mortar they went,
And then he started to triturate—
This charming "first-year" gent.

Oh! somewhere in the city
Is a store without a door,
With many a shattered window,
And a grease spot on the floor.

In the churchyard there's a mound,
Where lies the "first year's" dust;
This epitaph is on his tomb,
"Sulphur and Potash bust!"

—Farrow, '98.

—The students of the Philadelphia College of Pharmacy are determined to be "in the game." They have organized a football team, and are prepared to meet all comers—after they have had a little practice. They ought to make good players. No class of men are more used to "kicking" than pharmacists at the drug store counter. Too often the dear public wants all the earth and the fulness thereof for nothing, at the hands of the druggist, and when the d. p. fails to get it, there is "kicking," metaphorically speaking. It is in "counter-

ing" such "charges" and "tackling" the enemy that the average drug clerk makes "goals," and he feels that the training he has had in this line eminently fits him to tussle over the hog's skin with the other fellows. So, on October 28, 1897, the P.C.P. Football Team was organized. The following officers were elected:

Thos. Longshaw, Ph.G., '97, Manager, and O. L. Latchford, Secretary and Treasurer.

Thos. Longshaw, Thos. Levy, A. T. Evans and W. A. Hoffman were elected as a committee to wait on the Faculty and the wholesale druggists to enlist their interest in the work.

At the last meeting of the team, on November 3, the committee reported collecting \$95 from the professors of the Philadelphia College of Pharmacy, Smith, Kline, French & Co., J. B. Lippincott Co., Wayne & Co., Shoemaker & Bush, Robert Shoemaker, Whitall, Tatum & Co., Chas. Lippincott & Co., Jno. M. Maris & Co. and W. F. Ware.

The team is composed of Lefever (C.), Mills (L. G.), MacDonald (R. G.), Hoffman (L. T.), Dale (R. T.), Levy (L. E.), Richardson (R. E.), Pierce (Q. B.), Muttu (R. H. B.), Hill (L. H. B.), Pettibone (F. B.), McIlwain, Lehman, A. T. Evans, Samuel Evans, Hollaway, Bean and Wyckoff.

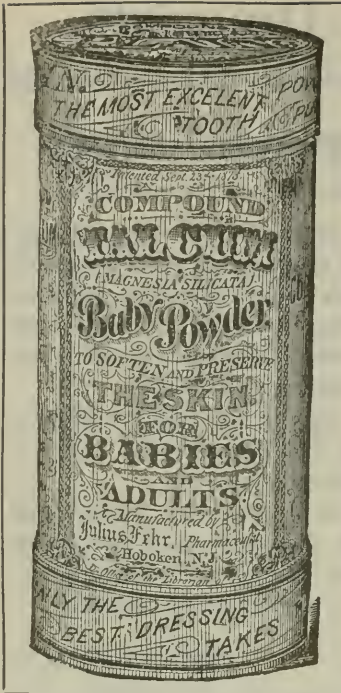
The team is a strong one, and they expect to do good work. Three cheers for the team! Give it your hearty support.

—At the recent examinations of the Pennsylvania State Pharmaceutical Examining Board in Philadelphia and Pittsburg, 308 applicants appeared for examination—224 at Philadelphia and 84 at Pittsburg. The Philadelphia class consisted of 113 applicants for registered pharmacists' certificates and 111 applicants for qualified assistants' certificates. Of this number 24 of the first-named and 66 of the latter succeeded in passing the examinations. The Pittsburg class consisted of 58 applicants for registered pharmacists' certificates and 26 for qualified assistants' certificates. Of this number 13 of the first-named class, and 18 of the latter succeeded in passing the examinations. The next meeting of the Board for the examination of applicants will be held in Philadelphia on Saturday, January 15, 1898. For full information address the Secretary, Charles T. George.

Following is the list of successful applicants: Philadelphia—Harry B. Althouse, John Henry

Lehr, Richard Wokatsch, George Alvin Meyers, Jacob W. Pfoutz, William Lemuel Spear, Charles B. Pierce, Alphonse Peter Breithaupt, John Francis Houch, John J. Brown, Thomas Hunter McNeil, Harris Lime Taylor, Charles L. Zentner, J. Dallas Seiberling, Charles Marell, Daniel H. Swinehart, Andrew W. McBrinn, J. Bowman Winger, Edward O. Franche, Dell Noblitt Ross, David Edward Nickles, Howard Grant Smoker, Lucian Scott Kemp, Samuel B. Davis, Walter Clement Muttu, William Allen Chamberlain, George W. Geasey, Harvey E. Wenner, Joseph Daniel Mowry, Joseph Robinson, Frank B. Kirby, Peter D. Hottenstein, George Herbert Keyser, Alfred Heimeberg, Edwin C. Zinn, Henry C. Woehlcke, Thomas B. Lore, Henry F. Griesamer, J. Paul Lauer, William C. Andrews, H. Curtis Hensell, Fannie B. Margalin, Frederick W. Beaver, Charles W. Esperman, Thomas Booth, John Henry Booth, Frederic W. Egel, James Garnett McCollin, Elwood K. Pfeiffer, Charles H. Jackson, Albert W. Stakel, Frank B. Ross, William Irvin Laucks, William F. Kiefer, Albert C. Menger, John Allen McFall, Joseph J. Levy, Mary Caroline Greer, Grace Mathers, Anna C. Ross, George Koehler, William H. DeBeust, Ivan L. MacPherran, John George Heckman, Charles Barth, Herbert K. Bachman, John K. Frederic, Edward Parry, Albert S. Brumbaugh, Henry L. Hetrick, Henry Curtis, Miles Herman Shimer, Graydon Duncan Mervine, William B. Wilcox, Peter Stang, Frank H. Jenkins, Martin B. Schroeder, William P. Wenrich, Edwin Merriam Hott, Theodore B. McClintock, Frederick S. Day, Herman Hugo Snyder, J. Edwards Black, John Paddock, Lloyd Lott Mountain, William Henry Sheehan, Fred. P. Schaemnele, William J. McDonald, Laura M. Smiley.

Pittsburg—Edgar F. Booker, David S. Fox, Arthur E. Fischer, Frank A. DeWitt, William H. Wesley, Edward E. Gayetty, Tony B. Rogers, Charles J. Weiss, Arthur M. Lyon, Ralph O. Stanford, Fred. M. Allison, George W. Danzberger, Charles John Neubig, Charles G. Schwartz, William C. Denslow, Frederick A. Nachman, Samuel Earle Bell, Clyde N. Honnell, Archibald U. Carter, Charles J. Rosenzweig, Chauncey N. Johnson, Frank Straub, Harry J. Streuber, Kent C. Scott, Charles Cherdson, Frank W. Gamble, William J. Forker, James E. Dougherty, J. E. Phillips, Clarence P. Mercer, George W. Hacker.



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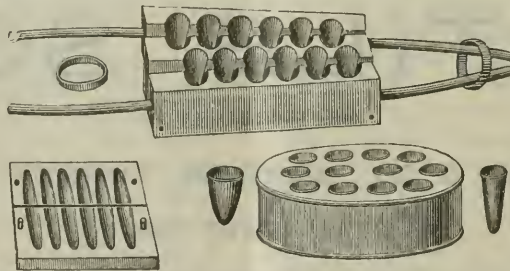
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some suitable for physicians. Information free to callers. Send stamped envelope with inquiries by mail.

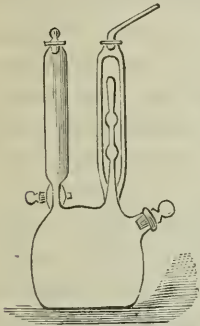
Long-Established Transfer Agency. References: Many of the Wholesale and Retail Druggists of Philadelphia and elsewhere.

OFFICE DAYS

MONDAY, WEDNESDAY and FRIDAY
9 A.M. to 3 P.M.

Daniel Phreaner,

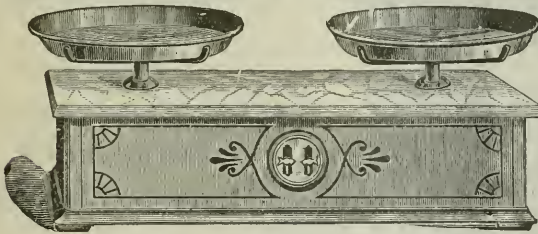
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FULL LABORATORY OUTFITS
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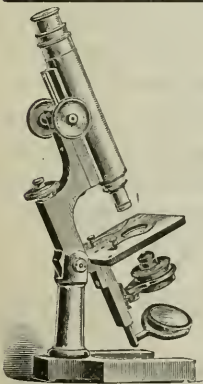
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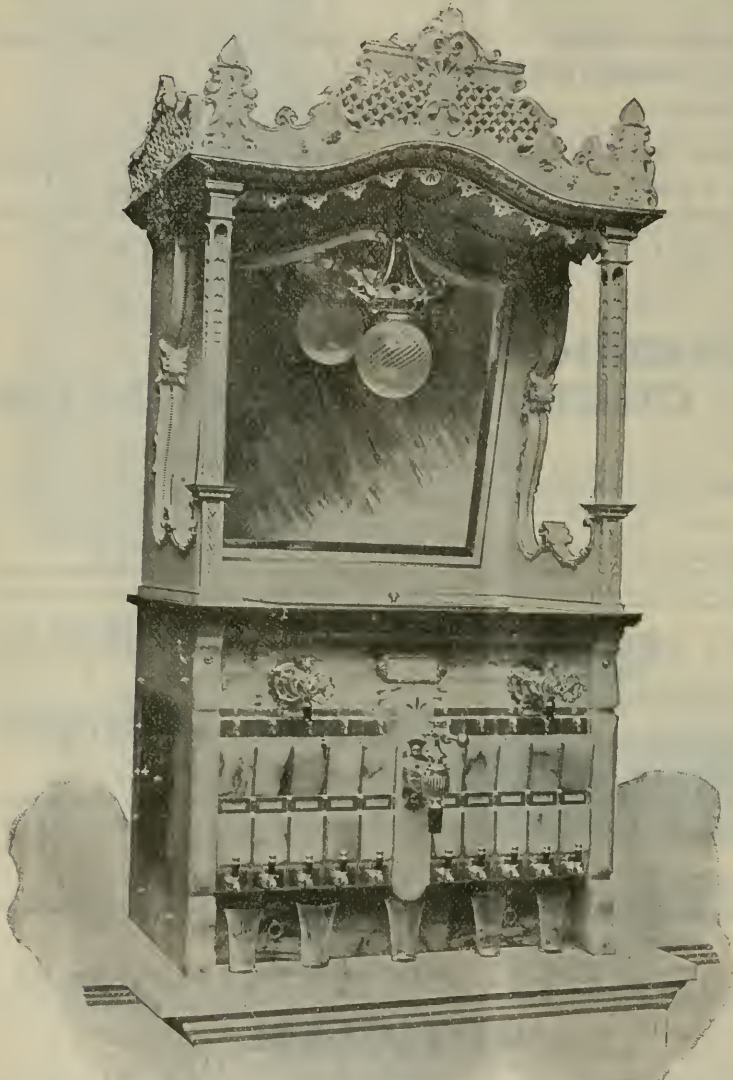
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Quadruple Silver Plating
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DROP US A



DOSES DAINTILY DONE UP

We make more tablets of all kinds than any other manufacturer. However, it isn't of tablets in general that we would speak just now, but of tablet goods put up in screw-cap vials. We are Headquarters for these, and we want every druggist to know it. We make a specialty of a flat, oval, screw-cap vial—handiest shape, fits the pocket best.

We make these screw-cap goods self-selling by means of the window strips and card-board salesmen we pack with every dozen box. In this respect they are like the Ten-Cents-Ables, and in another, too, for they sell at the uniform price of \$7.00 a gross, \$3.75 a half gross, \$2.00 a quarter gross and 75 cents a dozen.

Here is a list of those in most general use :

Borax Tablets
Bronchial Tablets
Chlorate of Potash
Digestive Tablets
Italian Mints

Kashu (Cachous)
Koko-Mint
Muriate Ammonia
Pepsin and Soda-Mint
Potassium Bicarb.
Potassium Chlor. and Borax

Saccharated Pepsin
Sodium Bicarb.
Soda-Mint Tablets
Soda-Mint and Charcoal
Sun Cholera Tablets

If you have a formula of your own which you would like to have put up in this way, let us hear from you. Dependable work, inviolable secrecy on our part, can be absolutely relied on.

PRINTING

For these and other goods which we put up for you, we do our own printing, that is *your own printing*. If words could only convey all that this word "printing" means for druggists when *we* use it!

Our facilities are unsurpassed and constantly enlarging and improving. And all for the benefit of our friends and customers. New ideas, new designs, new type, new presses, new machinery, new labels, new and better styles of doing printing work always being adopted. We are in the front rank as printers, and all the advantages of our position there are yours if you will to have it so.

All the printing necessary for the following, among other preparations, is done under our own roof in the best style of the art. And that printing includes your name and address on orders for three dozen of a kind and over.

Syrup White Pine Comp
Syrup White Pine C. mp., with Tar
Syrup Tar and Wild Cherry
Syrup Tolu, Tar and Wild Cherry
Glycerin Suppositories (both sizes
and in bottles of one dozen, or put
up in individual vials by the gross)
Slippery Elm Lozenges (several
styles)

Worm Lozenges
Seidlitz Powders (about 100 styles)
Bronchial Lozenges (half a-dozen
kinds)
Lithia Tablets (3 and 5 grains)
Tablets in screw cap vials (two score
of them or more)

Emulsion of Cod Liver Oil (8, 12
and 16 oz.)
Beef, Wine and Iron
Syrup of Hypophosphites
Sarsaparilla (syrup or extract)
Cocoa Wine
Kola Wine
Elixir Celery Comp.
Malt Extract, etc., etc.

Philadelphia Callowhill and Marshall Streets
New York 90 John Street
Boston 15 and 17 India Street
Chicago 59 Lake Street
Pittsburgh 624 Smithfield Street
London S E 120½ Southwark Street

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"The Peptogenic Milk Powder

with the method given, is the most exact, natural and practical means at present known, of rendering cows' milk suitable as a comprehensive substitute for woman's milk."

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ESKAY'S FOOD

(ALBUMENIZED)

THE BEST FOOD TRIED

We say: Best Substitute for Mother's Milk

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GENTLEMEN:—Through our physician we were induced to try on our baby your *Eskay's Albumenized Food*, and the results have been so very satisfactory that we have continued to use it. The child has thrived one hundred per cent. better on your Food than on mother's milk, and we feel grateful to the doctor for recommending it and our thanks to you for such a Food. It is the best of all other foods tried.

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Every druggist should accept our offer. Sample your physicians and increase your business. Eskay's Food secures the good-will of your customers. A postal card to us will bring full particulars.

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